Isogen Symbol Key (SKEY) Definitions

Reference Guide

Version 2016 (13.0)

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Preface

This document is intended to comprehensively cover all current Isogen symbol key symbol shapes.

What's New in Isogen Symbol Keys

The following changes have been made to the *Isogen Symbol Keys Reference Guide*.

Version 2016 (13.0)

- Two new Isogen symbol key definitions are introduced to support multi-part components: **XV****, which is treated as a valve, and **XF****, which is treated as a fitting. For more information, see *Multi-part component* in *Miscellaneous Pipe Components* (on page 21). (P2 AL:10549)

SECTION 1

Introduction

All components generated by Isogen are defined by a unique code called a symbol key (SKEY). SKEYs contain 2-4 characters; the first two characters define the type of component, and the last two characters define the end type, such as flanged, butt welded, or screwed. You can specify an appropriate end condition by replacing the **** characters in the SKEY with one of the sets of characters from the table below.

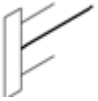
SKEY Characters	End Condition
BW	Butt Weld
CP	Compression
SW	Socket Weld
FL	Flanged
SC	Screwed
PL	Plain End
LN	Liner Nut
LC	Liner / Clamp
LR	Reducing Liner / Nut
MP	Male Part
PF	Push Fit
GL	Glued
CL	Clamped

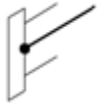
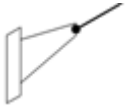
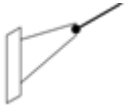
SKEY Characters	End Condition
FA	Flared
BS / SB	Ball and Socket (used on fixed length type pipe work)
GF	Gland (used on fixed length type pipe work)

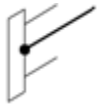
NOTES

- To denote the number of segments, replace the AT symbol (**@**) in the SKEY with an integer value in the range 1 to 9, inclusive. Currently, regardless of the value assigned to the AT sign, the software draws the symbol according to the SKEY plotted isometric shape.
- To denote the bend radius, replace the PLUS symbol (**+**) in the SKEY with an integer value in the range 1 to 9, inclusive.

Flanges and Balled Joints

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Blind flange (also known as a Blank flange. Symbol includes tapping connection)	FLBL			Yes	FLANGE-BLIND	107
Flared/Loose backing flange	FLFL			Yes	FLANGE	105
Loose backing flange	FLLB			Yes	FLANGE	105
Reducing concentric flange	FLRC			Yes	FLANGE-REDUCING-CONCENTRIC	65/0
Reducing eccentric flange	FLRE			Yes	FLANGE-REDUCING-ECCENTRIC	65/0
Screwed flange	FLSC			Yes	FLANGE	105
Slip-on flange with J-type weld	FLSJ			Yes	FLANGE	105
Slip-on flange	FLSO			Yes	FLANGE	105

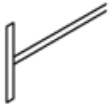
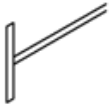
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Orifice slip-on flange with tapping connection	FOSO			Yes	FLANGE	105
Socket weld flange	FLSW			Yes	FLANGE	105
Weld neck flange	FLWN			Yes	FLANGE	105
Orifice weld neck flange with tapping connections	FOWN			Yes	FLANGE	105
Lap joint ring/Stub end combined flange	FBSE			Yes	FLANGE	105
Cast/lined fixed flange (Female) – Cast/lined flange	FLFF			Yes	FLANGE	105
Cast/lined rotating flange	FLFR			Yes	FLANGE	105
Cast/lined flange with Female gland type	FLGF			Yes	FLANGE	105
Cast/ lined flange with Male gland type	FLGM			Yes	FLANGE	105

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Glued (Female) connection	FLGL			Yes	FLANGE	105
Push fit (Female) connection	FLPF			Yes	FLANGE	105
Seal-welded flange (Sarlun/Sargol) (Female) connection	FLSF			Yes	FLANGE	105
Seal-welded flange (Sarlun/Sargol) (Male) connection	FLSM			Yes	FLANGE	105
Concentric reducing flange	FC**			Yes	FLANGE	105
Eccentric reducing flange	FE**			Yes	FLANGE	105
Jacket weld neck flange	JFWN			Yes	FLANGE	105
Jacket slip-on flange	JFSO			Yes	FLANGE	105

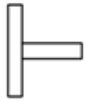
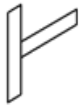
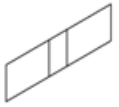
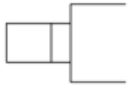
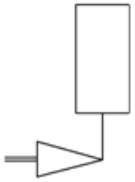
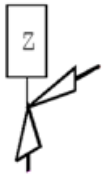
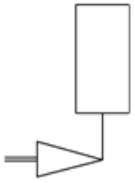
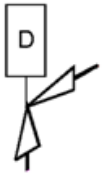
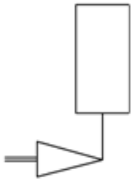
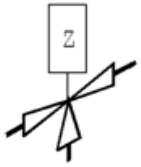
LSJE-Type Flanges

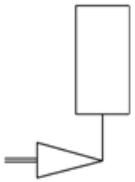
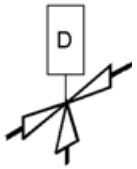
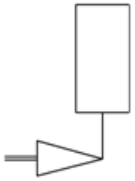
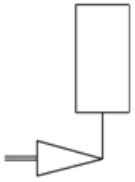
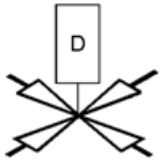
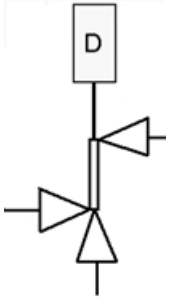
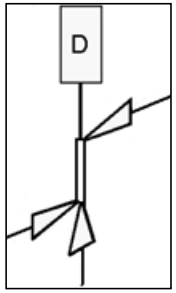
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Lap joint ring (Loose backing flange)	FLRG			Yes	LAPJOINT-RING	106
Lap joint stub end (Loose backing flange)	FLSE			Yes	LAPJOINT-STUB-END	106
Stub end (LJSE) (Use with glued//push fit systems)	FLMP			Yes	LAPJOINT-STUB-END	106

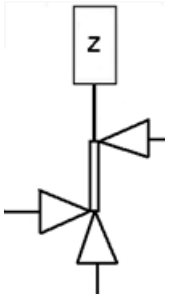
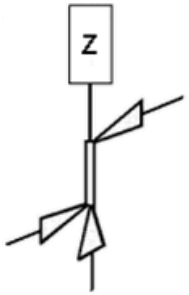
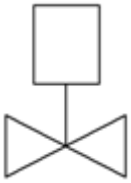
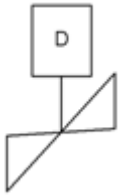
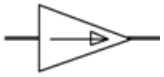
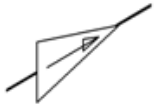
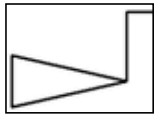
Hygienic Fittings

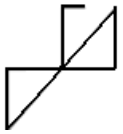
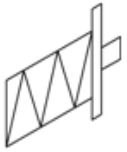
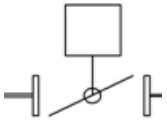
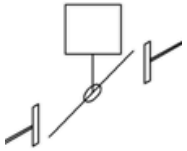
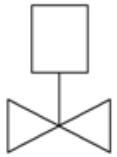
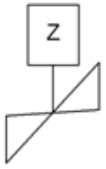
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	Flow Arrow / Flow Dependency	PCF Identification	IDF Record
Male part connector (Butt weld)	MPBW			Yes	No / No	CONNECTOR	111
Male part connector (Expanded)	MPEX			Yes	No / No	CONNECTOR	111
Clamp liner (Butt weld)	LCBW			Yes	No / No	CONNECTOR	111
Clamp liner (Expanded)	LCEX			Yes	No / No	CONNECTOR	111
Backing nut liner butt welded	LNBW			Yes	No / No	CONNECTOR	111
Backing nut liner	LN			Yes	No / No	CONNECTOR	111
Backing nut reducing liner (Butt weld)	LRBW			Yes	No / No	CONNECTOR	111

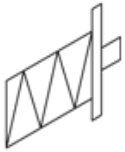
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	Flow Arrow / Flow Dependency	PCF Identification	IDF Record
Backing nut reducing liner (Expanded)	LREX			Yes	No / No	CONNECTOR	111
Backing nut	BNUT			Yes	No / No	NUT	112
Clamp	CLMP			Yes	No / No	CLAMP	113
Drain/Vent plug	DVP			Yes	No / No	MISC-HYGENIC	114
Male blanking plug	BM			Yes	No / No	MISC-HYGENIC	114
Blank plain	BP			Yes	No / No	MISC-HYGENIC	114
Reducing concentric blank boss	BBC			Yes	No / No	MISC-HYGENIC	114/0
Reducing eccentric blank boss	BBE			Yes	No / No	MISC-HYGENIC	114/0

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	Flow Arrow / Flow Dependency	PCF Identification	IDF Record
Blank thermocouple connector	BTP			Yes	No / --	MISC-HYGENIC	114/0
Male-to-male adapter	ADMM			Yes	No / --	MISC-HYGENIC	114
Male-to-female adapter	ADMF			Yes	No / --	MISC-HYGENIC	114
2 port single level (angle type) valve (Z)	2Z**			Yes	No / --	VALVE-ANGLE	75/76
2 port single level (angle type) valve (D)	2D**			Yes	No / --	VALVE-ANGLE	75/76
3 port single level valve (Z)	3Z**			Yes	No / --	VALVE-3WAY	80/0/81/82

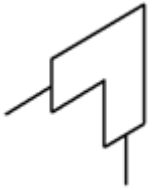
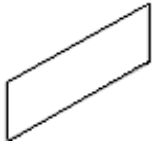
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	Flow Arrow / Flow Dependency	PCF Identification	IDF Record
3 port single level valve (D)	3D**			Yes	No / No	VALVE-3WAY	80/0/81/82
4 port single level valve (Z)	4Z**			Yes	No / No	VALVE-4WAY	85/0/86/87/88
4 port single level valve (D)	4D**			Yes	No / No	VALVE-4WAY	85/0/86/87/88
Multi-port dual level valve with D spindle	MD**			Yes	No / No	VALVE-MULTIWAY	75/76/80/0/81/82 85/0/86/87/88

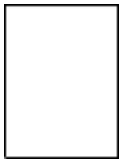
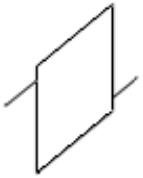
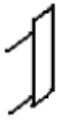
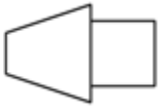
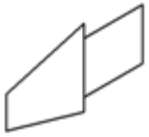
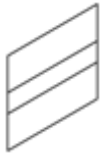
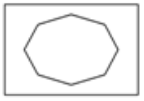
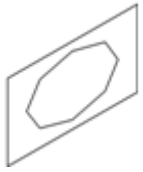
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	Flow Arrow / Flow Dependency	PCF Identification	IDF Record
Multi-port dual level valve with Z spindle	MZ**			Yes	No / No	VALVE-MULTIWAY	75/76 80/0/ 81/82 85/0/ 86/87/ 88
Separator for multi-level valve	DUMY			Yes	No / No	N/A	N/A
Graduated control valve (D)	IG**			Yes	Yes / No	INSTRUMENT	90/93
Non-return valve	NV**			Yes	No / Yes	VALVE	130
3-way check valve	K3**			Yes	No / No	VALVE-3WAY	80/0/ 81/82

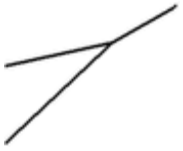
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	Flow Arrow / Flow Dependency	PCF Identification	IDF Record
Wide-angle cock	KV**			Yes	Yes / No	VALVE	130
Pressure relief valve (Z)	VZ**			Yes	No / Yes	VALVE	130
Butterfly valve	ZB**			Yes	Yes / No	VALVE	130
Graduated control valve (Z)	ZG**			Yes	Yes / No	VALVE	130

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	Flow Arrow / Flow Dependency	PCF Identification	IDF Record
Pressure relief valve (Instrument type) (I)	ZV**			Yes	No / Yes	INSTRUMENT	90/93

Miscellaneous Pipe Components

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	Flow Arrow / Flow Dependency	PCF Identification	IDF Record
Block angle	BA**			Yes	No / No	MISC-COMPONENT-ANGLE	95/96
Expansion bellows	EX**			Yes	Yes / No	MISC-COMPONENT	95/96
Flame trap	FT**			Yes	Yes / No	MISC-COMPONENT	95/96
Flexible hose	FX**			Yes	Yes / No	MISC-COMPONENT	95/96
Hose coupling	CH**			Yes	No / No	MISC-COMPONENT	95/96
Non-category item	NC**			Yes	No / No	MISC-COMPONENT	95/96

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	Flow Arrow / Flow Dependency	PCF Identification	IDF Record
Block offset	BO**			Yes	Yes / No	MISC-COMPONENT-OFFSET	95/96
Block return	BR**			Yes	Yes / No	MISC-COMPONENT-RETURN	95/96
Plug	PL			Yes	No / No	MISC-COMPONENT	95/96
Restrictor plate	RP			Yes	Yes / No	MISC-COMPONENT	95/96
Reinforcing pad	RPAD			Yes	No / No	REINFORCEMENT PAD	NONE
Sight glass	SG**			Yes	Yes / No	MISC-COMPONENT	95/96

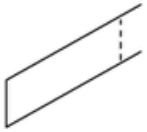
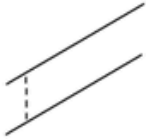
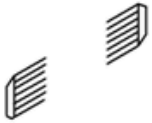
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	Flow Arrow / Flow Dependency	PCF Identification	IDF Record
Slip plate	SP			Yes	No / No	MISC-COMPONENT	95/96
Slip ring	SR			Yes	No / No	MISC-COMPONENT	95/96
Spectacle blind (closed)	SB			Yes	No / No	MISC-COMPONENT	95/96
Spectacle blind (open)	OB			Yes	No / No	MISC-COMPONENT	95/96
Tundish (funnel)	TU**			Yes	Yes / Yes	MISC-COMPONENT	95/96
Multi-part component (fitting)	XF**			Yes	No / No	MULTI-PART-COMPONENT	95/96
Multi-part component (valve)	XV**			Yes	No / No	MULTI-PART-COMPONENT	95/96

Miscellaneous Items

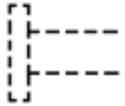
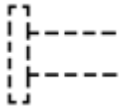
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Insulation symbol	INPP			Yes	INSULATION-SYMBOL	149
Floor symbol	FLOR			Yes	FLOOR-SYMBOL	149
Flow arrow	FLOW			Yes	FLOW-ARROW	149
Location point	LOPT			No	LOCATION-POINT	149
Wall symbol	WALL			Yes	WALL-SYMBOL	149
Arrow head (dimension line)	AR01			Yes	N/A	N/A
Arrow head (message line)	AR02			Yes	N/A	N/A

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Line break	AR04			Yes	N/A	N/A

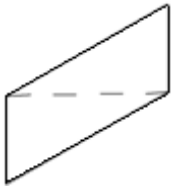
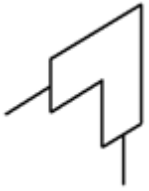
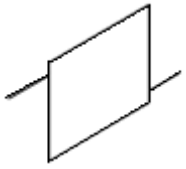
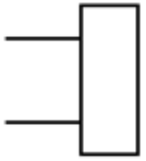
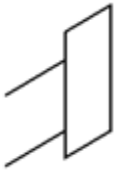
Penetration Plate Items

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Penetration plate (End sections)	PLT1			Yes	Used with PENETRATION-PLATE	Used with symbol key CRPP
Penetration plate (Center sections)	PLT2			Yes	Used with PENETRATION-PLATE	Used with symbol key CRPP
Locating pin	LPIN			Yes	MISC-COMPONENT	95/96

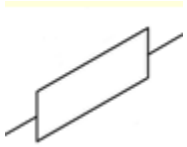
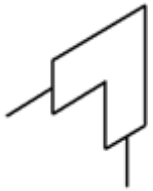
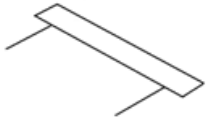
Nozzles

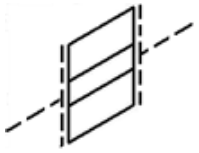
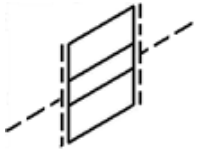
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Nozzle (Start flanged)	NZFS			Yes	NOZZLE	-31
Nozzle (End flanged)	NZFE			Yes	NOZZLE	-31
Nozzle (Start welded)	NZWS			Yes	NOZZLE	-31
Nozzle (End welded)	NZWE			Yes	NOZZLE	-31

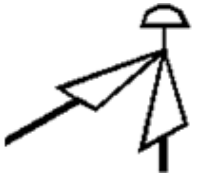
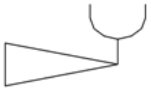
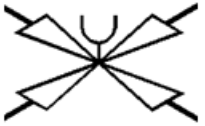
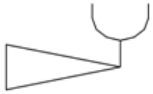
Inline Filters

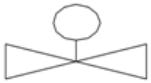
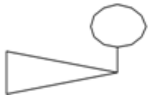
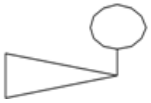
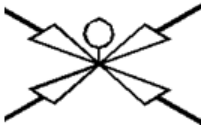
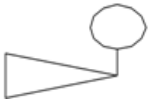
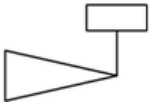
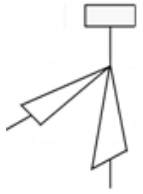
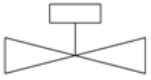
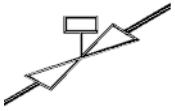
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	Flow Arrow / Flow Dependency	PCF Identification	IDF Record
Straight through filter/strainer	FI**			Yes	Yes / Yes	FILTER	136/137
Angle filter/strainer	FA**			Yes	No / No	FILTER-ANGLE	136/137
Offset filter/strainer	FO**			Yes	Yes / No	FILTER-OFFSET	136/137
Return filter/strainer	FR**			Yes	Yes / No	FILTER-RETURN	136/137

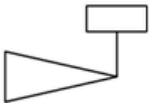
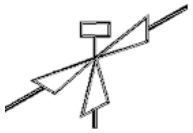
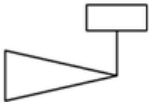
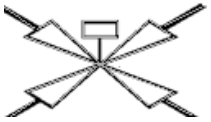
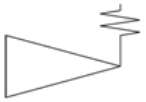
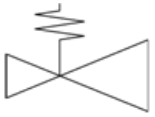
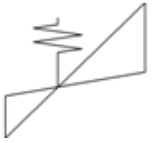
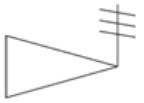
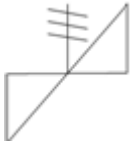
Instruments

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	Flow Arrow / Flow Dependency	PCF Identification	IDF Record
Instrument	II**			Yes	No / No	INSTRUMENT	90/93
Instrument angle	IA**			Yes	No / No	INSTRUMENT-ANGLE	90/93
Instrument offset	IO**			Yes	Yes / No	INSTRUMENT-OFFSET	90/93
Instrument return	IR**			Yes	Yes / No	INSTRUMENT-RETURN	90/93
Instrument dial	IDPL	N/A		No	No / No	INSTRUMENT-DIAL	90

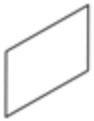
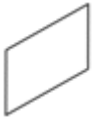
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	Flow Arrow / Flow Dependency	PCF Identification	IDF Record
Instrument dial (flanged)	IDFL	N/A		No	No / No	INSTRUMENT-DIAL	90
Orifice plate	OP			Yes	Yes / No	INSTRUMENT	90/93
Restrictor plate	PR			Yes	Yes/No	INSTRUMENT	90/93
Rupture disk	DR			Yes	Yes / Yes	INSTRUMENT	90/93
Control valve	CV**			Yes	Yes / No	INSTRUMENT	90/93
3-way control valve	C3**			Yes	No / No	INSTRUMENT-3WAY	90/0/91/93

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	Flow Arrow / Flow Dependency	PCF Identification	IDF Record
4-way control valve	C4**			Yes	No / No	INSTRUMENT-4WAY	90/0/ 91/92/93
Angled control valve	CA**			Yes	No / No	INSTRUMENT-ANGLE	90/93
Hand-operated control valve	HV**			Yes	Yes / No	INSTRUMENT	90/93
Hand-operated 3-way control valve	H3**			Yes	No / No	INSTRUMENT-3WAY	90/0/ 91/93
Hand-operated 4-way control valve	H4**			Yes	No / No	INSTRUMENT-4WAY	90/0/91/ 92/93
Hand-operated angled control valve	HA**			Yes	No / No	INSTRUMENT-ANGLE	90/93

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	Flow Arrow / Flow Dependency	PCF Identification	IDF Record
Motor-operated control valve	MV**			Yes	Yes / No	INSTRUMENT	90/93
Motor-operated 3-way control valve	M3**			Yes	No / No	INSTRUMENT-3WAY	90/0/ 91/93
Motor-operated 4-way control valve	M4**			Yes	No / No	INSTRUMENT-4WAY	90/0/91/ 92/93
Motor-operated angled control valve	MA**			Yes	No / No	INSTRUMENT-ANGLE	90/93
Instrument angle control valve with square indicator	SA**			Yes	No / No	INSTRUMENT-ANGLE	90/93
Square indicator control valve	SV**			Yes	Yes / No	INSTRUMENT	90/93

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	Flow Arrow / Flow Dependency	PCF Identification	IDF Record
Square indicator 3-way control valve	S3**			Yes	No / No	INSTRUMENT-3WAY	90/0/ 91/93
Square indicator 4-way control valve	S4**			Yes	No / No	INSTRUMENT-4WAY	90/0/ 91/92/93
Angled pressure reducing angle	XA**			Yes	Yes / No	INSTRUMENT-ANGLE	90/93
Pressure reducing instrument valve	XV**			Yes	Yes / Yes	INSTRUMENT-ANGLE	90/93
Angled relief/valve instrument valve	RA**			Yes	Yes / No	INSTRUMENT-ANGLE	90/93
Relief/Vent instrument valve	RV**			Yes	Yes / No	INSTRUMENT	90/93

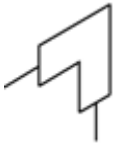
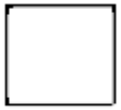
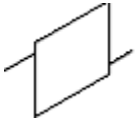
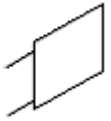
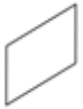
Pipe Blocks

Description	SKEY	Shape	Plotted Isometric Shape	User Definable	PCF Identification	IDF Record
Fixed length pipe block	PF			Yes	PIPE-BLOCK-FIXED	102
Variable length pipe block	PV			Yes	PIPE-BLOCK-VARIABLE	103

Vents

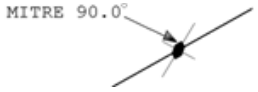
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	Flow Arrow / Flow Dependency	PCF Identification	IDF Record
Rupture disk	RD			Yes	Yes / Yes	SAFETY-DISC	134

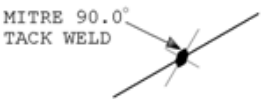
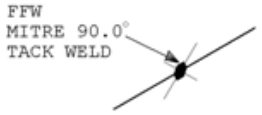
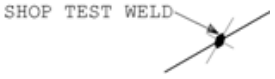
Traps

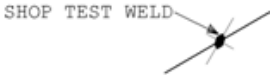
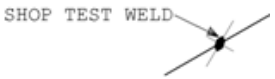
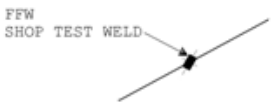
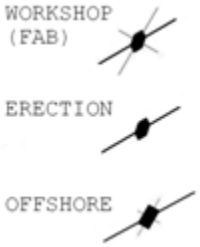
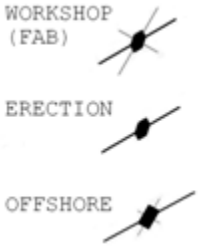
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	Flow Arrow/ Flow Dependency	PCF Identification	IDF Record
Angle trap	TA**			Yes	No / No	TRAP-ANGLE	132/133
Offset trap	TO**			Yes	Yes / No	TRAP-OFFSET	132/133
Return trap	TR**			Yes	Yes / No	TRAP-RETURN	132/133
Inline trap	TI**			Yes	No / No	TRAP	132/133

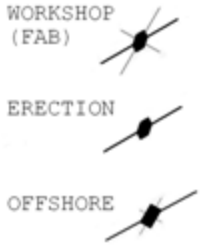
Welds

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Workshop weld	WW			Yes	WELD	120
Dotted workshop weld	WWD			Yes	WELD	120
Site weld	WS			Yes	WELD	120
Tack for site weld	WST			Yes	WELD	120
Dotted site weld	WSD			Yes	WELD	120
Field fit weld	WF			Yes	WELD	120
Tack for field fit weld	WFT			Yes	WELD	120
Dotted field fit weld	WFD			Yes	WELD	120
Offshore weld	WO			Yes	WELD	120

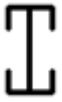
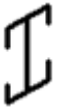
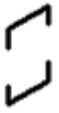
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Tack for offshore weld	WOT			Yes	WELD	120
Dotted offshore weld	WOD			Yes	WELD	120
Offshore field fit weld	WOF			Yes	WELD	120
Tack for offshore field fit weld	WOFT			Yes	WELD	120
Special site weld (non-spooling)	WSSP			Yes	WELD	120
Automatic workshop weld	WWA			Yes	WELD	120
Field fit weld with shop test requirement	WFST			Yes	WELD	120
Field fit offshore dotted	WOFD			Yes	WELD	120
Mitre weld	WM	N/A		Yes	WELD	120
Dotted mitre weld	WMD	N/A		Yes	WELD	120

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Erection mitre weld	WMS	N/A		Yes	WELD	120
Dotted erection mitre weld	WMSD	N/A		Yes	WELD	120
Offshore mitre weld	WMO	N/A		Yes	WELD	120
Dotted Offshore mitre weld	WMOD	N/A		Yes	WELD	120
Mitre field fit weld	WMF	N/A		No	WELD	120
Mitre tack weld	WMT	N/A		No	WELD	120
Mitre field fit tack weld	WMFT	N/A		No	WELD	120
Site workshop test weld	WSST			No	WELD	120

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Workshop shot test weld	WWST			No	WELD	120
Offshore shop test weld	WOST			No	WELD	120
Offshore field fit shop test weld	WVST			No	WELD	120
Support weld	ZSP*			No	WELD	120
Trunnion weld	ZTN*			No	WELD	120

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Reinforced trunnion	ZTR*			No	WELD	120
Site socket/screwed compression weld	XX	N/A		No	WELD	120
Site socket/screwed compression dotted weld	XXD	N/A		No	WELD	120
Erection seal weld	WSSR			Yes	WELD	120
Offshore seal weld	WOSR			Yes	WELD	120

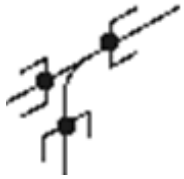
Symbol Coupling

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Coupling with glued connections	COGL			Yes	COUPLING	126
Coupling with push fit end connections	COPF			Yes	COUPLING	126
Coupling with flared end connections	COFA			Yes	COUPLING	126
Coupling with clamped end connections	COCL			Yes	COUPLING	126
Coupling with Victaulic connections (Grooved pipe)	COVT			Yes	COUPLING	126
Coupling with Victaulic connections (Welded connections)	COVR			Yes	COUPLING	126

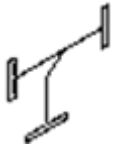
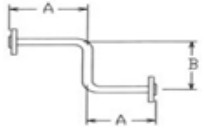
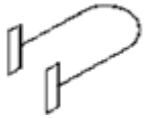
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Coupling with compression sleeve connections	CSCP			Yes	COUPLING	126
Coupling with Grayloc connections	COGY			Yes	COUPLING	126

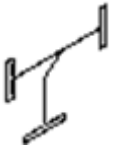
Elbows and Bends

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Butt weld elbow (90° and 45°)	ELBW	N/A		No	ELBOW	35/36
Compression elbow (90° and 45°)	ELCP	N/A		No	ELBOW	35/36
Screwed elbow with Female ends (90° and 45°)	ELSC	N/A		No	ELBOW	35/36
Socket weld elbow (90° and 45°)	ELSW	N/A		No	ELBOW	35/36
Screwed elbow with Male ends (90° and 45°)	EBSC	N/A		No	ELBOW	35/36

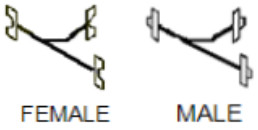
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Socket weld teed elbow (90° and 45°)	ETSW	N/A		No	ELBOW-TEED	70/0/71/72
Screwed teed elbow (90° and 45°)	ETSC	N/A		No	ELBOW-TEED	70/0/71/72
Compression teed elbow (90° and 45°)	ETCP	N/A		NO	ELBOW-TEED	70/0/71/72
Butt weld teed elbow (90° and 45°)	ETBW	N/A		No	ELBOW-TEED	70/0/71/72
Reducing elbow	ER**	N/A		No	ELBOW-REDUCING	35/36

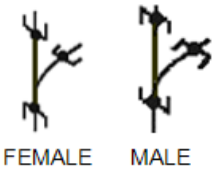
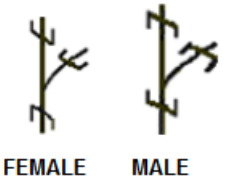
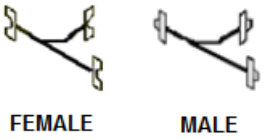
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Butt weld return elbow (180°)	EUBW	N/A		No	ELBOW	35/36
Plain end return elbow (180°)	EUPL	N/A		No	ELBOW	35/36
Flanged teed elbow (All angles)	BTFL	N/A		No	BEND-TEED	70/0/71/72
Butt weld mitre tee bend	MTBW	N/A		No	BEND-TEED	70/0/71/72
Butt weld mitre bend	MIBW	N/A		No	BEND	30/31
Flanged mitre bend	MIFL	N/A		No	BEND	30/31

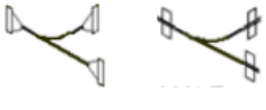
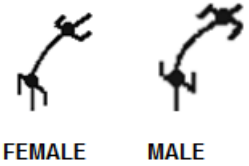
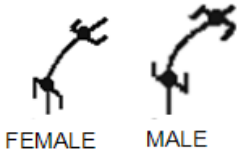
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Mitre tee bend with plain ends	MTPL	N/A		No	BEND-TEED	70/0/71/72
Flanged mitre tee bend	MTFL	N/A		No	BEND-TEED	70/0/71/72
Flanged bend (All angles)	BEFL	N/A		No	BEND	30/31
Bend (Multi-axis lined pipes. Must be used in conjunction with PIPELINE-TYPE.)	BM**	N/A		No	BEND	30/31
Flanged 180° return bend	BUFL	N/A		No	BEND	30/31
Butt weld lobster bend	L@BW	N/A		No	BEND	30/31

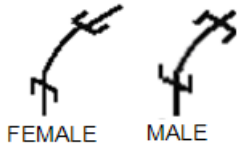
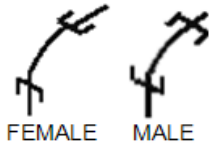
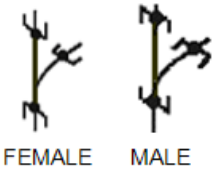
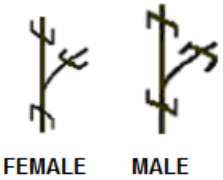
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Butt weld lobster tee bend	T@BW	N/A		No	BEND-TEED	70/0/71/72
Flanged lobster bend	L@FL	N/A		No	BEND	30/31
Flanged lobster tee bend	T@FL	N/A		No	BEND-TEED	70/0/71/72
Pulled bend (All angles)	PB+D	N/A		No	BEND	30/31
180° pulled return bend	BU+D	N/A		No	BEND	30/31
Pulled tee bend (All angles)	TB+D	N/A		No	BEND-TEED	70/0/71/72

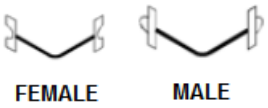
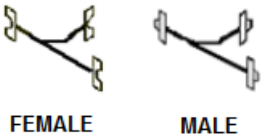
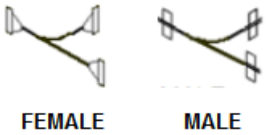
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Pulled bend with weld at each end	PBBW	N/A		No	BEND	30/31
180° Pulled return bend with weld at each end	BUBW	N/A		No	BEND	30/31
Pulled tee bend with weld at each end	TBBW	N/A		No	BEND-TEED	70/0/71/72
Bend with flared end connection	BEFA	N/A		Ends only	BEND	30/31
Bend with clamped end connections	BECL	N/A		Ends only	BEND	30/31
Elbow with flared end connections	ELFA	N/A		Ends only	ELBOW	35/36

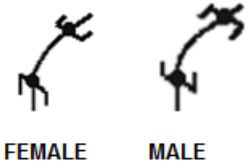
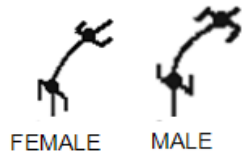
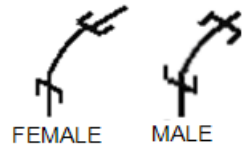
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Elbow with clamped end connections	ELCL	N/A		Ends only	ELBOW	35/36
Teed elbow with flared end connections	ETFA	N/A		Ends only	ELBOW-TEED	70/71/72
Teed elbow with clamped end connections	ETCL	N/A		Ends only	ELBOW-TEED	70/71/72
Reducing elbow with flared end connections	ERFA	N/A		Ends only	ELBOW-REDUCING	35/36
Reducing elbow with clamped end connections	ERCL	N/A		Ends only	ELBOW-REDUCING	35/36
NOTE The ends on the following elbow and bend components can be individually designated **MALE** or **FEMALE**.						
Elbow with flanged gland-type end connections	ELGF	N/A		Ends only	ELBOW	35/36
Elbow with flanged ball/socket end connections	ELBS	N/A		Ends only	ELBOW	35/36

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Teed elbow with glued end connections	ETGL	N/A		Ends only	ELBOW-TEED	70/71/72
Teed elbow with push fit end connections	ETPF	N/A		Ends only	EBOW-TEED	70/71/72
Bend with flanged ball/socket end connections	BEBS	N/A		Ends only	BEND	30/31
Tee bend with flanged ball/socket end connections	BTBS	N/A		Ends only	BEND-TEED	70/0/71/72

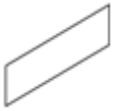
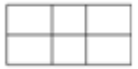
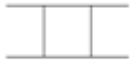
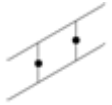
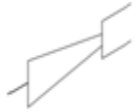
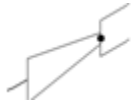
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Bend with flanged gland-type end connections	BEGF	N/A		Ends only	BEND	30/31
Tee bend with flanged gland-type end connections	TBGF	N/A		Ends only	BEND-TEED	70/0/71/72
Bend with glued end connections	BEGL	N/A		No	BEND	30/31
Elbow with glued end connections	ELGL	N/A		Ends only	ELBOW	35/36

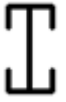
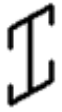
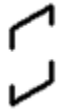
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Elbow with push fit end connections	ELPF	N/A		Ends only	ELBOW	35/36
Bend with push fit connections	BEPF	N/A		No	BEND	30/31
Teed elbow with glued end connections	ETGL	N/A		Ends only	ELBOW-TEED	70/71/72
Teed elbow with push fit end connections	ETPF	N/A		Ends only	EBOW-TEED	70/71/72

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Bend with flanged ball/socket end connections	BEBS	N/A		Ends only	BEND	30/31
Tee bend with flanged ball/socket end connections	BTBS	N/A		Ends only	BEND-TEED	70/0/71/72
Bend with flanged gland-type end connections	BEGF	N/A		Ends only	BEND	30/31
Tee bend with flanged gland-type end connections	TBGF	N/A		Ends only	BEND-TEED	70/0/71/72

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Bend with glued end connections	BEGL	N/A		No	BEND	30/31
Elbow with glued end connections	ELGL	N/A		Ends only	ELBOW	35/36
Elbow with push fit end connections	ELPF	N/A		Ends only	ELBOW	35/36

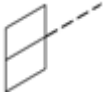
Couplings

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Nipple (Running screwed)	NRSC			Yes	COUPLING	126
Nipple (Barrel screwed)	NBSC			Yes	COUPLING	126
Coupling (Compression)	COCP			Yes	COUPLING	126
Coupling (Screwed)	COSC			Yes	COUPLING	126
Coupling (Screwed)	COSW			Yes	COUPLING	126
Elbolet coupling (Butt weld)	CEBW			Yes	ELBOLET	126/0
Elbolet coupling (Screwed)	CESC			Yes	ELBOLET	126/0
Elbolet coupling (Socket weld)	CESW			Yes	ELBOLET	126/0

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Coupling with glued end connections	COGL			Yes	COUPLING	126
Coupling with push fit end connections	COPF			Yes	COUPLING	126
Coupling with flared end connections	COFA			Yes	COUPLING	126
Coupling with clamped end connections	COCL			Yes	COUPLING	126
Coupling with Victaulic connections (Grooved pipe)	COVT			Yes	COUPLING	126
Coupling with Victaulic connections (Welded connections)	COVR			Yes	COUPLING	126
Coupling with compression sleeve connections	CSCP			Yes	COUPLING	126

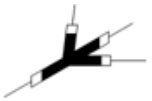
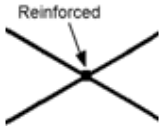
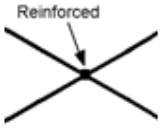
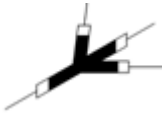
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Coupling with Grayloc connections	COGY			Yes	COUPLING	126

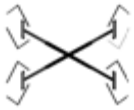
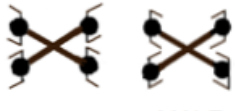
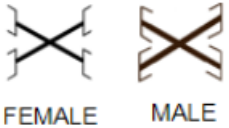
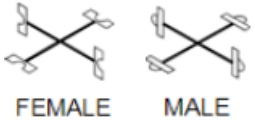
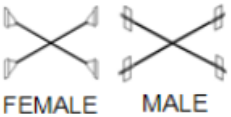
Caps

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Butt weld cap (includes tapping connections)	KABW			Yes	CAP	125/0
Compression cap	KACP			Yes	CAP	125/0
Screwed cap	KASC			Yes	CAP	125/0
Socket Weld cap	KASW			Yes	CAP	125/0
Flanged cap	KAFL			Yes	CAP	125/0
Glued cap	KAGL			Yes	CAP	125/0
Push fit cap	KAPF			Yes	CAP	125/0
Flared cap	KAFA	N/A		Yes	CAP	125/0

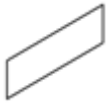
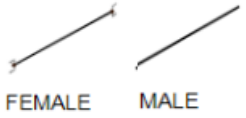
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Clamped cap	KACL	N/A		Yes	CAP	125/0

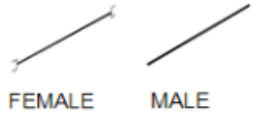
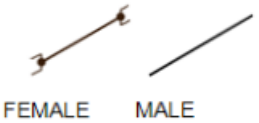
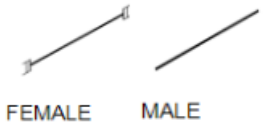
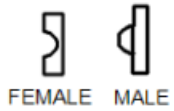
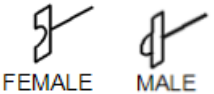
Crosses

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Cross	CR**	N/A		No	CROSS	50/0/51/ 52/53
Y-type cross	CY**	Uses YSML, YMED, & YLRG		Yes	CROSS	50/0/51/ 52/53
Set-on cross	CRSO	N/A		No	CROSS-SET-ON or CROSS-STUB	50/0/51/ 52/53
Set-on reinforced cross	CRRF	N/A		No	CROSS-SET-ON or CROSS-STUB	50/0/51/ 52/53
Stub in cross	CSSO	N/A		No	CROSS-SET-ON or CROSS-STUB	50/0/51/ 52/53
Stub in reinforced cross	CSRF	N/A		No	CROSS-SET-ON or CROSS-STUB	50/0/51/ 52/53
Set-on cross (Y-type)	CYSO	Uses YSML, YMED, & YLRG		Yes	CROSS-SET-ON or CROSS-STUB	50/0/51/ 52/53

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Cross with flared end connections	CRFA	N/A		Ends only	CROSS	50/0/51/ 52/53
Cross with clamped end connections	CRCL	N/A		Ends only	CROSS	50/0/51/ 52/53
NOTE The ends on the following cross components can be individually designated as **MALE** or **FEMALE**.						
Cross with glued end connections	CRGL	N/A		Ends only	CROSS	50/0/51/ 52/53
Cross with push fit end connections	CRPF	N/A		Ends only	CROSS	50/0/51/ 52/53
Cross with flanged ball/socket end connections	CRBS	N/A		Ends only	CROSS	50/0/51/ 52/53
Cross with flanged gland-type end connections	CRGF			Ends only	CROSS	50/0/51 /52/53

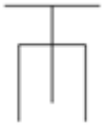
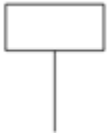
Fixed Length Pipes

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Fixed length pipe with integral ends	FPFL			No	PIPE-FIXED	101
Fixed length pipe without flanged ends	FPPL			Yes	PIPE-FIXED	101
Fixed pipe with flared end connections	FPFA			Yes	PIPE-FIXED	101
Fixed pipe with clamped end conditions	FPCL			Yes	PIPE-FIXED	101
NOTE The ends on the following fixed length pipe components can be individually designated **MALE** or **FEMALE**.						
Fixed pipe with glued end connections	FPGL			Yes	PIPE-FIXED	101
Fixed pipe with push fit end connections	FPPF			Yes	PIPE-FIXED	101

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Fixed pipe with screwed end connections	FPSC			Yes	PIPE-FIXED	101
Fixed pipe with socket end connections	FPSW			Yes	PIPE-FIXED	101
Fixed pipe with compression end connections	FPCP			Yes	PIPE-FIXED	101
Fixed pipe with flanged ball and socket	FPFL			Yes	PIPE-FIXED	101

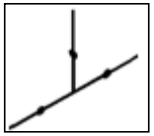
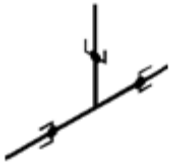
Spindles

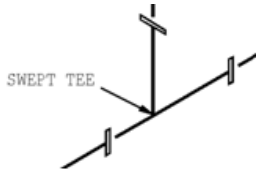
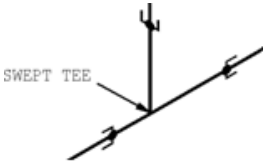
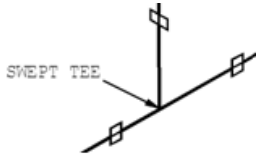
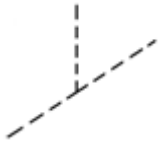
Description	SKEY	Shape	User-Definable	PCF Identification	IDF Record
Spindle 1	01SP		Yes	SPINDLE-SKEY	126
Spindle 2	02SP		Yes	SPINDLE-SKEY	126
Spindle 3	03SP		Yes	SPINDLE-SKEY	126
Spindle 4	04SP		Yes	SPINDLE-SKEY	126
Spindle 5	05SP		Yes	SPINDLE-SKEY	126
Spindle 6	06SP		Yes	SPINDLE-SKEY	126

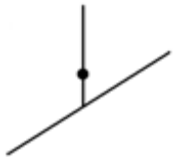
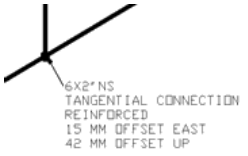
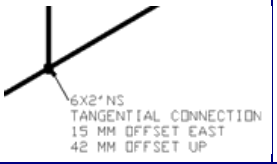
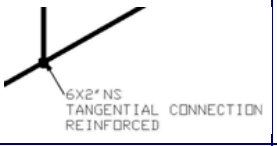
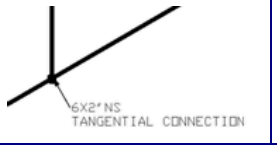
Description	SKEY	Shape	User-Definable	PCF Identification	IDF Record
Spindle 7	07SP		Yes	SPINDLE-SKEY	126
Spindle 8	08SP		Yes	SPINDLE-SKEY	126
Spindle 9	09SP		Yes	SPINDLE-SKEY	126
Spindle 10	10SP		Yes	SPINDLE-SKEY	126
Spindle 11	11SP		Yes	SPINDLE-SKEY	126
Spindle 12	12SP		Yes	SPINDLE-SKEY	126

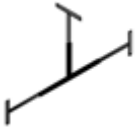
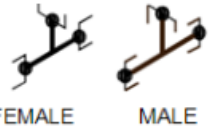
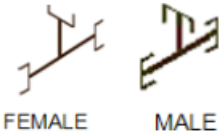
Description	SKEY	Shape	User-Definable	PCF Identification	IDF Record
Spindle 13	13SP		Yes	SPINDLE-SKEY	126
Spindle 14	14SP		Yes	SPINDLE-SKEY	126
Spindle 15	15SP		Yes	SPINDLE-SKEY	126

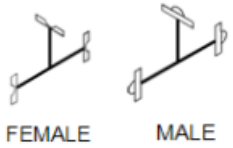
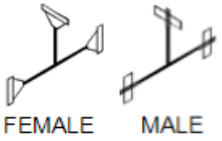
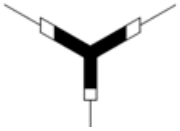
Tees

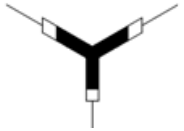
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Tee	TE**			No	TEE	45/0/46/47
Set-on tee	TESO			No	TEE-SET-ON or TEE-STUB	45/0/46/47
Set-on reinforced tee	TERF			No	TEE-SET-ON or TEE-STUB	45/0/46/47
Stub in tee	TSSO			No	TEE-SET-ON or TEE-STUB	45/0/4/47
Stub in reinforced tee	TSRF			No	TEE-SET-ON or TEE-STUB	45/0/46/47
Socket weld tee	TESW			No	TEE	45/0/46/47

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Swept branch tee (Butt weld)	TSBW			No	TEE	45/0/46/47
Swept branch tee (Flanged)	TSFL			No	TEE	45/0/46/47
Swept socket weld tee	TSSW			No	TEE	45/0/46/47
Swept compression tee	TSCP			No	TEE	45/0/46/47
Ghost tee	TEGG			No	TEE	45/0/46/47

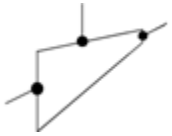
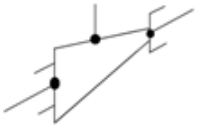
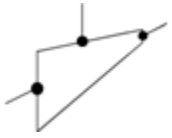
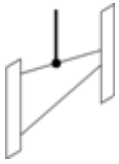
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Pulled out tee	TPUL			No	TEE	45/0/46/47
Offset tee (reinforced set-on)	TORF			No	TEE	45/0/46/47
Set-on tangential tee	TOSO			No	TEE	45/0/46/47
Tangential tee (reinforced set-on)	TTRF			No	TEE	45/0/46/47
Offset tee (set-on)	TTSO			No	TEE	45/0/46/47

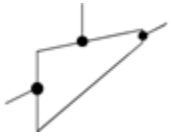
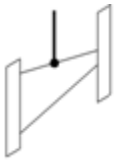
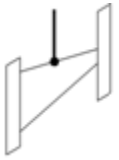
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Instrument tee	IT**			No	INSTRUMENT-TEE	40/41/42/0
Tee with flared end connections	TEFA			Yes	TEE	45/0/46/47
Tee with clamped end connections	TECL			Yes	TEE	45/0/46/47
NOTE The ends on the following tee components can be individually designated as **MALE** or **FEMALE**.						
Tee with glued end connections	TEGL			Yes	TEE	45/0/46/47
Tee with push fit end connections	TEPF			Yes	TEE	45/0/46/47

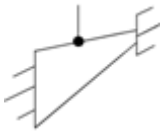
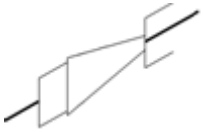
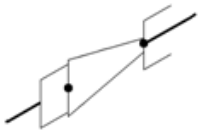
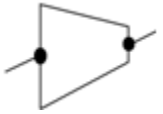
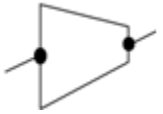
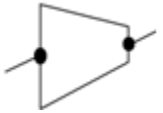
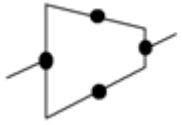
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Tee with flanged ball/socket end connections	TEBS			Yes	TEE	45/0/46/47
Tee with flanged gland-type end connections	TEGF			Yes	TEE	45/0/46/47
NOTE SKEYs YLRG, YMED, and YSML are used with Y-Type Tees / Crosses.						
Y-type tee (Large)	YLRG		See Y-type tee/cross	Yes	See Y-type tee/cross	
Y-type tee (Medium)	YMED		See 'Y' Type Tee/Cross	Yes	See Y-type tee/cross	
Y-type tee (Small)	YSML		See Y-type tee/cross	Yes	See Y-type tee/cross	
Y-type tee	TY**	Uses YSML, YMED or YLRG		Yes	TEE	45/0/46/47

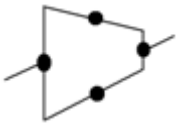
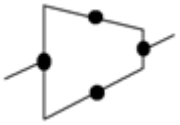
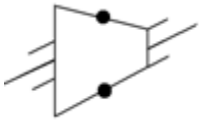
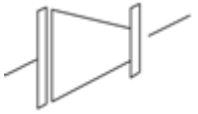
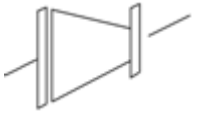
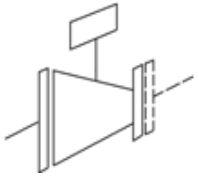
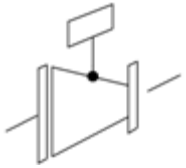
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Set-on Y-type tee	TYSO	Uses YSML, YMED or YLRG		Yes	TEE-SET-ON or TEE-STUB	45/0/46/47

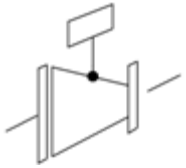
Reducers

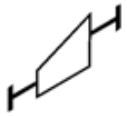
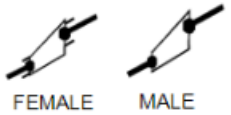
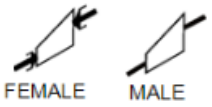
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	Flow Arrow / Flow Dependency	PCF Identification	IDF Record
Concentric reducer	RC**			Yes	No / No	REDUCER-CONCENTRIC	55/0
Concentric reducer (Butt weld with a connection)	CTBW			Yes	No / No	REDUCER-CONCENTRIC-TEED	60/0/61/62
Concentric reducer (Socket weld with a connection)	CTSW			Yes	No / No	REDUCER-CONCENTRIC-TEED	60/0/61/62
Concentric reducer (Butt weld fabricated from plate)	CPBW			Yes	No / No	REDUCER-CONCENTRIC	55/0
Concentric reducer (Butt weld swaged from pipe)	CSBW			Yes	No / No	REDUCER-CONCENTRIC	55/0
Concentric reducer (Fabricated from a plate with a connection)	CZBW			Yes	No / No	REDUCER-CONCENTRIC-TEED	60/0/61/62
Concentric reducer (Fabricated from plate - flanged with a connection)	CZFL			Yes	No / No	REDUCER-CONCENTRIC-TEED	60/0/61/62

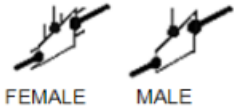
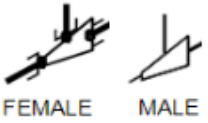
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	Flow Arrow / Flow Dependency	PCF Identification	IDF Record
Concentric reducer (Swaged from pipe with a connection)	CXBW			Yes	No / No	REDUCER-CONCENTRIC-TEED	60/0/61/62
Concentric reducer (Fabricated from plate - flanged)	CPFL			Yes	No / No	REDUCER-CONCENTRIC	55/0
Concentric reducer (Swaged from plate - flange)	CSFL			Yes	No / No	REDUCER-CONCENTRIC	55/0
Concentric reducer (Flanged with a connection)	CTFL			Yes	No / No	REDUCER-CONCENTRIC-TEED	60/0/61/62
Concentric reducer (Swaged from pipe - flanged with a connection)	CXFL			Yes	No / No	REDUCER-CONCENTRIC-TEED	60/0/61/62
Concentric reducer (Screwed nipple)	RNSC			Yes	No / No	REDUCER-CONCENTRIC	55/0

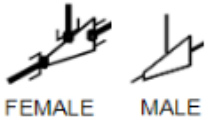
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	Flow Arrow / Flow Dependency	PCF Identification	IDF Record
Concentric reducer (Screwed with a connection)	CTSC			Yes	No / No	REDUCER-CONCENTRIC-TEED	60/0/61/62
Concentric reducer (Screwed bush)	RBSC			Yes	No / No	REDUCER-CONCENTRIC	55/0
Concentric reducer (Socket weld bush)	RBSW			Yes	No / No	REDUCER-CONCENTRIC	55/0
Eccentric reducer	RE**			Yes	No / No	REDUCER-ECCENTRIC	55/0
Eccentric reducer (Fabricated from plate)	EPBW			Yes	No / No	REDUCER-ECCENTRIC	55/0
Eccentric reducer (Swaged from pipe)	ESBW			Yes	No / No	REDUCER-ECCENTRIC	55/0
Eccentric reducer (Butt weld with a connection)	OTBW			Yes	No / No	REDUCER-ECCENTRIC-TEED	60/0/61/62

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	Flow Arrow / Flow Dependency	PCF Identification	IDF Record
Eccentric reducer (Butt weld fabricated from plate with a connection)	EZBW			Yes	No / No	REDUCER-ECCENTRIC-TEED	60/0/61/62
Eccentric reducer - butt weld (Swaged from pipe with connection)	EXBW			Yes	No / No	REDUCER-ECCENTRIC-TEED	60/0/61/62
Eccentric reducer (Screwed with a connection)	OTSC			Yes	No / No	REDUCER-ECCENTRIC-TEED	60/0/61/62
Eccentric reducer (Fabricated from plate)	EPFL			Yes	No / No	REDUCER-ECCENTRIC	55/0
Eccentric reducer - flanged (Swaged from pipe)	ESFL			Yes	No/No	REDUCER-ECCENTRIC	55/0
Eccentric reducer (Flanged with a connection)	OTFL			Yes	No / N o	REDUCER-ECCENTRIC-TEED	60/0/61/62
Eccentric reducer - flanged (Fabricated from plate with a connection)	EZFL			Yes	No / No	REDUCER-ECCENTRIC-TEED	60/0/61/62

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	Flow Arrow / Flow Dependency	PCF Identification	IDF Record
Eccentric reducer - flanged (Swaged from pipe with a connection)	EXFL			Yes	No / No	REDUCER-ECCENTRIC-TEED	60/0/61/62
Reducing block	RFPL			Yes	Yes / No	REDUCER-CONCENTRIC	55/0
Concentric reducer with flared end connections	RCFA	N/A		Yes	Yes / No	REDUCER-CONCENTRIC	55/0
Concentric reducer with clamped end connections	RCCL	N/A		Yes	Yes / No	REDUCER-CONCENTRIC	55/0
Concentric teed reducer with flared end connections	CTFA	N/A		Yes	No / No	REDUCER-CONCENTRIC-TEED	60/0/61/62
Concentric teed reducer with clamped end connections	CTCL	N/A		Yes	No / No	REDUCER-CONCENTRIC-TEED	60/0/61/62

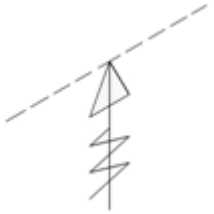
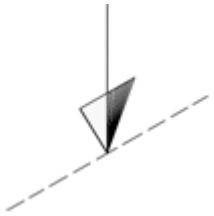
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	Flow Arrow / Flow Dependency	PCF Identification	IDF Record
Eccentric reducer with flared end connections	REFA	N/A		Yes	No / No	REDUCER-ECCENTRIC	55/0
Eccentric reducer with clamped end connections	RECL	N/A		Yes	No / No	REDUCER-ECCENTRIC	55/0
Eccentric teed reducer with flared end connections	OTFA	N/A		Yes	No / No	REDUCER-CONCENTRIC-TEED	60/0/61/62
Eccentric teed reducer with clamped end connections	OTCL	N/A		Yes	No / No	REDUCER-CONCENTRIC-TEED	60/0/61/62
NOTE The ends on the following cross components can be individually designated as **MALE** or **FEMALE**.							
Eccentric reducer with glued end conditions	REGL	N/A		Yes	No / No	REDUCER-ECCENTRIC	55/0
Eccentric reducer with push fit end connections	REPF	N/A		Yes	No / No	REDUCER-ECCENTRIC	55/0

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	Flow Arrow / Flow Dependency	PCF Identification	IDF Record
Eccentric teed reducer with glued end connections	OTGL	N/A		Yes	No / No	REDUCER-CONCENTRIC-TEED	60/0/61/62
Eccentric teed reducer with push fit end connections	OTPF	N/A		Yes	No / No	REDUCER-CONCENTRIC-TEED	60/0/61/62
Concentric reducer with glued end conditions	RCGL	N/A		Yes	Yes / No	REDUCER-CONCENTRIC	55/0
Concentric reducer with push fit end connections	RCPF	N/A		Yes	Yes / No	REDUCER-CONCENTRIC	55/0
Concentric teed reducer with glued end connections	CTGL	N/A		Yes	No / No	REDUCER-CONCENTRIC-TEED	60/0/61/62

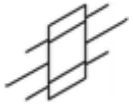
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	Flow Arrow / Flow Dependency	PCF Identification	IDF Record
							
Concentric teed reducer with push fit end connections	CTPF	N/A		Yes	No / No	REDUCER-CONCENTRIC-TEED	60/0/61/62

Supports

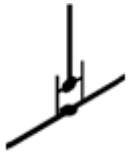
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Hanger/Support	01HG (or Blank)			Yes	SUPPORT	150
Anchor	ANCH			Yes	SUPPORT	150
Duck foot	DUCK			Yes	SUPPORT	150
Support - Guide/Steady	GUID			Yes	SUPPORT	150
Skid	SKID			Yes	SUPPORT	150

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Spring	SPRG			Yes	SUPPORT	150
Hanger	HANG			Yes	SUPPORT	150

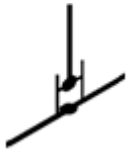
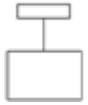
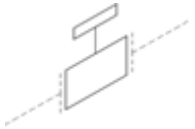
Unions

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Union	UN**			Yes	UNION	127/0

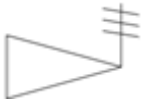
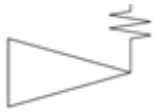
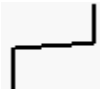
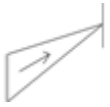
Olets

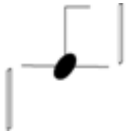
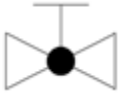
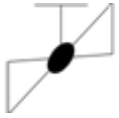
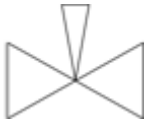
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Olet (Half coupling screwed)	HCSC			Yes	OLET	40/0/41/42
Olet (Half coupling socket weld)	HCSW			Yes	OLET	40/0/41/42
Nipolet	NI**			Yes	OLET	40/0/41/42
Nipolet (Screwed)	NISC			Yes	OLET	40/0/41/42
Sockolet (Socket weld)	SKSW			Yes	OLET	40/0/41/42

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Sweepolet (Butt weld)	SWBW			Yes	OLET	40/0/41/42
Thredolet (Screwed)	THSC			Yes	OLET	40/0/41/42
Weldolet (Butt weld)	WTBW			Yes	OLET	40/0/41/42
Latrolet (Screwed)	LASC			Yes	OLET	40/0/41/42
Latrolet (Socket weld)	LASW			Yes	OLET	40/0/41/42

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Latrolet (Butt weld)	LABW			Yes	OLET	40/0/41/42
Flanged instrument tee	ITFL			No	INSTRUMENT-TEE	40/0/41/42

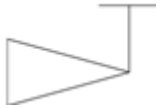
Valves

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	Flow Arrow / Flow Dependency	PCF Identification	IDF Record
Angle valve	AV**			Yes	Yes / No	VALVE-ANGLE	75/76
Relief/Vent angle valve	AR**			Yes	Yes / No	VALVE-ANGLE	75/76
Pressure reducing angle valve	AX**			Yes	Yes / No	VALVE-ANGLE	75/76
Basic valve	VV**			Yes	Yes / No	VALVE	130/0
Check valve	VC**			Yes	Yes / No	VALVE	130/0
Check valve (alternative)	CK**			Yes	No / Yes	VALVE	130/0
Ball valve	VB**			Yes	Yes / No	VALVE	130/0

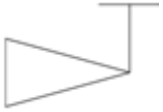
Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	Flow Arrow / Flow Dependency	PCF Identification	IDF Record
Butterfly valve	VY**			Yes	Yes / No	VALVE	130/0
Diaphragm valve	VD**			Yes	Yes / No	VALVE	130/0
Globe valve	VG**			Yes	Yes / No	VALVE	130/0
Pressure reducing valve	VX**			Yes	Yes / Yes	VALVE	130/0
Cock valve	VK**			Yes	Yes / No	VALVE	130/0
Gate valve	VT**			Yes	Yes / No	VALVE	130/0
Needle valve	VN**			Yes	Yes / No	VALVE	130/0
Plug valve	VP**			Yes	Yes / No	VALVE	130/0

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	Flow Arrow / Flow Dependency	PCF Identification	IDF Record
Relief/Vent valve	VR**			Yes	Yes / No	VALVE	130/0
Slide valve	VS**			Yes	Yes / No	VALVE	130/0

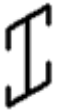
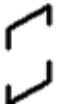
Three-Way Valves

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Three-way valve	V3**			Yes	VALVE-3WAY	80/0/81/ 82/83

Valves - 4-Way

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Four-way valve	V4**			Yes	VALVE-4WAY	80/0/81/82/83

Clamped Joints

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Flared clamp	CLMP			Yes	CLAMP	113
Victaulic (Grooved pipe end type)	CLVT			Yes	CLAMP	113
Victaulic (Welded/forged ring type)	CLVR			Yes	CLAMP	113
Compression sleeve coupling	CLCS			Yes	CLAMP	113
Grayloc-type coupling	CLGY			Yes	CLAMP	113

Liners (Connectors)

Description	SKEY	Shape	Plotted Isometric Shape	User-Definable	PCF Identification	IDF Record
Grayloc socket weld connector	LNSW	N/A	N/A	N/A	N/A	N/A
Grayloc (Female) screwed connector	LNSC	N/A	N/A	N/A	N/A	N/A
Victaulic - Welded ring type (Number of welds set by Option Switch 77 Position 7)	LVBW	N/A	N/A	N/A	N/A	N/A